

AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

Please cancel claims 2-14 without prejudice.

1. (amended) A method for separating magnetic particles suspended in a fluid comprising:

providing an apparatus ~~in a first position~~ having a container for containing a fluid having magnetic particles suspended in the fluid, an automated pipette, and a magnet;

placing the magnet and the container in a first position relative to one another so that the magnet exerts a magnetic field on the magnetic particles that tends to isolate the magnetic particles in a selected zone of the container distal from the pipette;

applying the magnetic field across the container for a selected period of time to evacuate the magnetic particles from a first aspiration zone of the container;

aspirating a preselected quantity of fluid from the first aspiration zone in the container, wherein the preselected quantity of fluid is less than 1/2 (one-half) the volume of the fluid;

placing the apparatus in a second position separating the magnetic field from the pipette, whereby in the second position the magnet applies a magnetic field to the magnetic particles to evacuate the magnetic particles from a second aspiration zone;

aspirating the fluid from the second aspiration zone whereby the magnetic particles are separated from the fluid.

2. – 14. (canceled)

15. (amended) A method for separating magnetic particles suspended in a fluid comprising: in an automated instrument,

~~wherein the~~ providing an automated instrument having at least one magnet, an automatic pipettor, and a container having an open proximal end and a closed distal end in which is placed a fluid suspension of magnetic microparticles, ~~and wherein the instrument~~ is capable of mechanically juxtaposing the container with one or more magnets of the

instrument so that the one or more magnets exert a magnetic field on the magnetic microparticles;

~~in which method the instrument:~~

~~positions-positioning~~ the container in a first position relative to a first magnet;

applying the magnetic field across the container to evacuate the magnetic microparticles from a first aspiration zone in the container;

~~actuates the automatic pipettor so as to aspirate~~ aspirating a preselected quantity of fluid from ~~a the~~ first aspiration zone in the container;

without adding fluid to the container:

~~repositions-repositioning~~ the container into a second position relative to ~~a the~~ first magnet or to a second magnet distal from the first position to evacuate the magnetic microparticles from a second aspiration zone in the container; and

aspirating the fluid from a the second aspiration zone; whereby to separate the magnetic particles are separated from the fluid.

16. (amended) A method for separating magnetic particles suspended in a fluid ~~in an automated instrument, comprising:~~

~~wherein the~~ providing an automated instrument ~~has having~~ at least a first magnet, a pipettor, and a container in which is placed a fluid suspension of magnetic microparticles, ~~and wherein the instrument is capable of mechanically juxtaposing the container with one or more magnets of the instrument,~~

~~in which method the instrument performs the following steps:~~

bringing the container and first magnet near each other such that the center of the magnetic field is located nearer to the open end of the container than to the closed end of the container so as to capture a portion of the magnetic microparticles on the wall of the container;

aspirating a preselected quantity of fluid from the container;

without adding fluid to the container:

moving the container or first magnet is moved such that the container is brought near to a second magnet, which may be the same or different than the first magnet, and the center of the magnetic field of the second magnet is closer to the closed end of the

container than to the open end of the container such that the collection of captured magnetic microparticles is moved lower on the wall of the container; and
aspirating a portion of the fluid from the container.

17. (previously amended) A method of isolating nucleic acid from a sample, comprising the following steps:

adding to the container: a sample comprising nucleic acids, a lysis solution, and magnetic microparticles such that nucleic acids are bound to the microparticles;

separating the microparticles from the fluid according to claim 16, wherein when the center of the magnetic field of the second magnet is moved closer to the closed end of the container than to the open end of the container, it is positioned laterally to the container near the bottom of the container, but not below the container;

adding a wash solution to the container;

aspirating a portion of the fluid from the container;

raising the container relative to the magnet such that the bottom of the container is raised above the top of the magnet,

adding an elution buffer; and

removing a portion of the elution buffer thereby isolating nucleic acid from the sample.

18. (new) The method of claim 1, further comprising:

placing the apparatus in a third position separating the magnetic field from the pipette, wherein in the third position the magnet applies a magnetic field to evacuate the magnetic particles from a third aspiration zone; and

aspirating the fluid from the third aspiration zone to separate the magnetic particles from the fluid.

19. (new) The method of claim 15, wherein the preselected quantity of fluid is less than or equal to about one-half the volume of the fluid.

20. (new) The method of claim 15, wherein the preselected quantity of fluid is more than about one-half the volume of the fluid, but less than all of the fluid.

21. (new) The method of claim 15, further comprising:

repositioning the container into a third position relative to the first magnet or to the second magnet to evacuate the magnetic microparticles from a third aspiration zone in the container;

aspirating the fluid from the third aspiration zone to separate the magnetic particles from the fluid.

22. (new) A method for separating magnetic particles suspended in a fluid in an automated instrument comprising:

receiving in the automated instrument a container having an open proximal end and a closed distal end for containing a fluid having magnetic particles suspended in the fluid;

placing at least one magnet and the container in a first position relative to one another so that the magnet exerts a magnetic field on the magnetic particles to isolate the magnetic particles in a selected zone of the container;

applying the magnetic field across the container to evacuate the magnetic particles from a first aspiration zone of the container;

aspirating a preselected quantity of fluid from the first aspiration zone in the container;

without adding fluid to the container:

placing the at least one magnet and the container in a second position relative to one another distal from the first position, wherein the magnetic field evacuates the magnetic particles from a second aspiration zone; and

aspirating the fluid from the second aspiration zone to separate the magnetic particles from the fluid.

23. (new) The method of claim 22, wherein the preselected quantity of fluid is less than or equal to about one-half the volume of the fluid.

24. (new) The method of claim 22, wherein the preselected quantity of fluid is more than about one-half the volume of the fluid, but less than all of the fluid.

25. (new) The method of claim 22, further comprising:

placing the at least one magnet and the container in a third position relative to one another, wherein the magnetic field evacuates the magnetic particles from a third aspiration zone;

aspirating the fluid from the third aspiration zone to separate the magnetic particles from the fluid.

26. (new) A method for separating magnetic particles suspended in a fluid in an automated instrument comprising:

receiving in the automated instrument a container with an open proximal end and a closed distal end having a fluid suspension of magnetic microparticles;

automatically positioning the container in a first position relative to a first magnet;

actuating an automatic pipettor to aspirate a preselected quantity of fluid from a first aspiration zone in the container so that a remaining quantity of fluid is left behind in the container;

automatically repositioning the container into a second position relative to the first magnet or to a second magnet distal from the first position;

actuating the automatic pipettor to aspirate at least a portion of the remaining quantity of fluid from a second aspiration zone to separate the magnetic microparticles from the fluid.

27. (new) The method of claim 26, wherein the preselected quantity of fluid is less than or equal to about one-half the volume of the fluid.

28. (new) The method of claim 26, wherein the preselected quantity of fluid is more than about one-half the volume of the fluid, but less than all of the fluid.

29. (new) The method of claim 26 further comprising:

automatically repositioning the container into a third position relative to the first magnet or to the second magnet;

actuating the automatic pipettor to aspirate at least a portion of the remaining quantity of fluid from a third aspiration zone to separate the magnetic particles from the fluid.

30. (new) A method for separating magnetic particles suspended in a fluid comprising:

receiving in an instrument a container having an open proximal end and a closed distal end for containing a fluid having magnetic particles suspended in the fluid;

placing at least one magnet and the container in a first position relative to one another so that the magnet exerts a magnetic field on the magnetic particles;

applying the magnetic field across the container to evacuate the magnetic particles from a first aspiration zone of the container;

aspirating a preselected quantity of fluid from the first aspiration zone in the container so that a remaining quantity of fluid is left behind in the container;

placing the at least one magnet and the container in a second position relative to one another distal from the first position, wherein the magnetic field evacuates the magnetic particles from a second aspiration zone; and

aspirating at least a portion of the remaining quantity of fluid from the second aspiration zone to separate the magnetic particles from the fluid.

31. (new) A method for separating magnetic particles suspended in a fluid comprising:

receiving in an automated instrument a container with an open proximal end and a closed distal end having a fluid containing magnetic microparticles suspended in the fluid;

separating the magnetic microparticles from the fluid in at least two stages before adding fluid to the container;

the first stage comprising:

automatically positioning the container in a first position relative to a first magnet;

actuating an automatic pipettor to aspirate a preselected quantity of fluid from a first aspiration zone in the container;

the second stage comprising:

automatically repositioning the container into a second position relative to the first magnet or to a second magnet distal from the first position;

actuating the automatic pipettor to aspirate the fluid from a second aspiration zone to separate the magnetic microparticles from the fluid.

32. (new) A method of isolating nucleic acid from a sample comprising:

receiving in an automated instrument a container having a fluid suspension, said fluid suspension comprising a sample comprising nucleic acids, a lysis solution, and magnetic microparticles adapted to bind to the nucleic acids;

positioning the container in a first position relative to at least one magnet;

aspirating a preselected quantity of fluid from a first aspiration zone in the container so that a remaining quantity of fluid is left behind in the container;

repositioning the container into a second position relative to the at least one magnet;

aspirating at least a portion of the remaining quantity of fluid from a second aspiration zone to separate the magnetic microparticles from the fluid;

adding a wash solution to the container;

aspirating a portion of the wash solution from the container;

repositioning the container into a third position relative to the at least one magnet;

adding an elution buffer; and

aspirating a portion of the elution buffer to isolate nucleic acid from the sample.